

Data Manipulation

CPU Basics

CPU Basics

What is CPU?

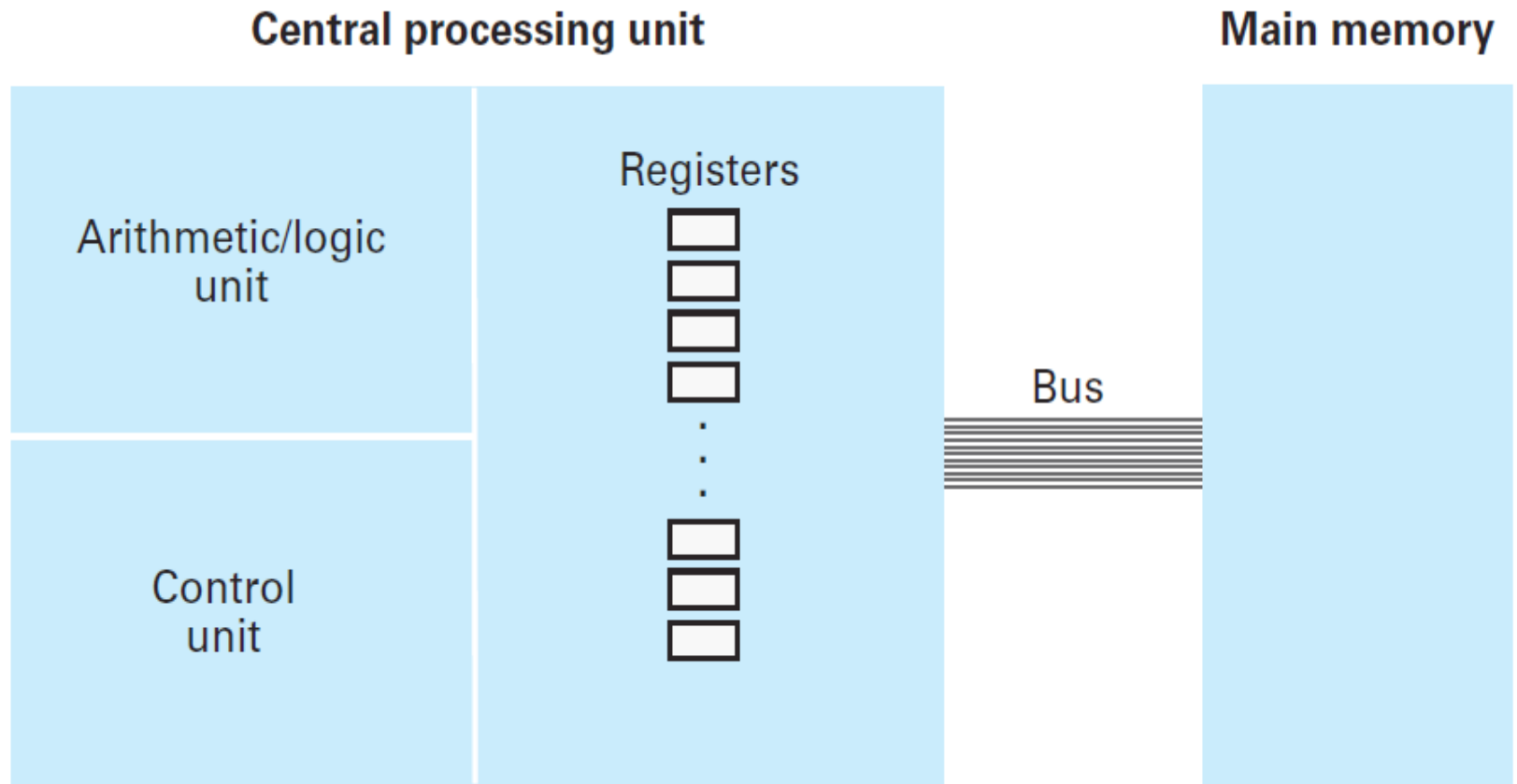
- ✓ The circuitry in a computer that controls the manipulation of data is called the central processing unit, or **CPU (Processor)**

CPU Basics

Size of CPU

- ✓ In the mid-twentieth, it comprises of large racks
- ✓ Today 2*3 inch connected to motherboard.
- ✓ In smartphones, the size is as small as half of the postal stamp.

CPU Basics



CPU Basics

CPU Components

- ✓ **ALU:** contains circuitry that performs operations like addition and subtraction
- ✓ **CU:** contains circuitry for coordination of machine activity.
- ✓ **Register Unit:** temporary storage of information.

Addition Algorithm

Adding values stored in memory

Step 1. Get one of the values to be added from memory and place it in a register.

Step 2. Get the other value to be added from memory and place it in another register.

Step 3. Activate the addition circuitry with the registers used in Steps 1 and 2 as inputs and another register designated to hold the result.

Step 4. Store the result in memory.

Step 5. Stop.

Summary

CPU Basic

- ✓ ALU
- ✓ CU
- ✓ Registers
- ✓ Main memory
- ✓ Addition Algorithm